



***ACS300 / ACS320 SmartSpeaker***  
***User Manual***

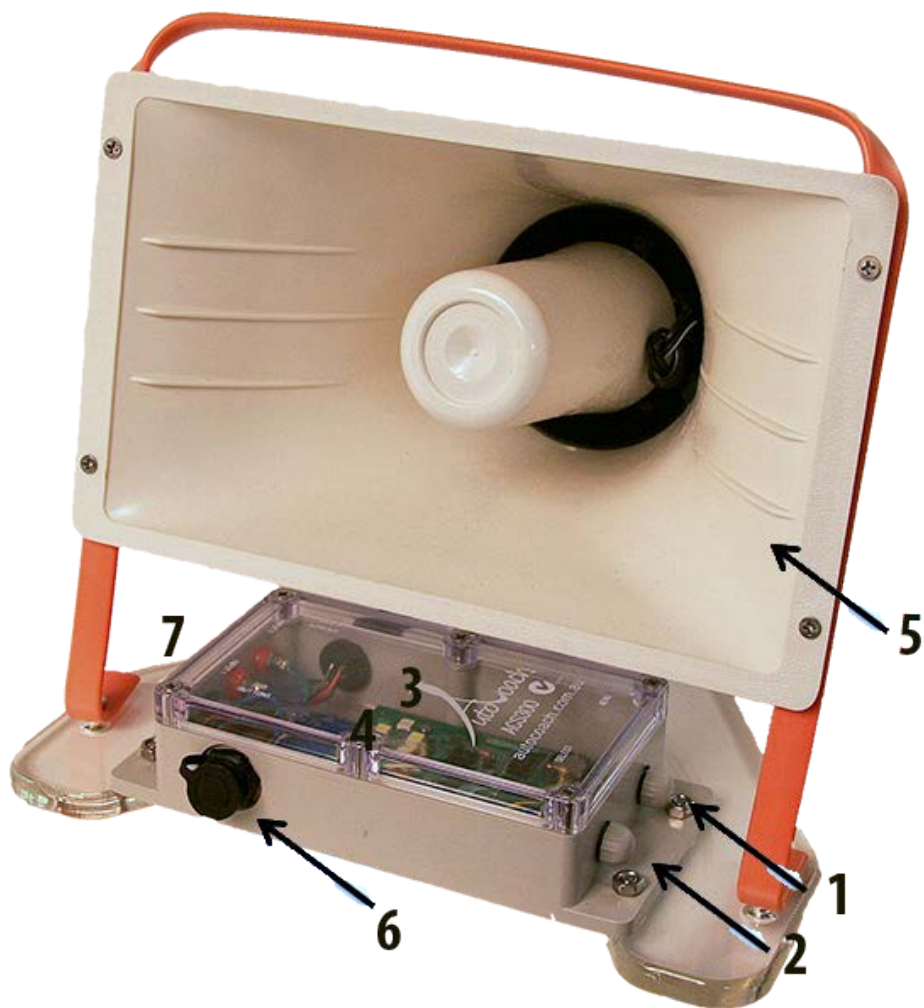
Software revision 4.01+

# Table of Contents

- SmartSpeaker Controls & Indicators .....3
  - 1. Turning on and off .....5
    - 1.1: Turning unit on .....5
    - 1.2: Turning unit off .....5
    - 1.3: Battery Level .....5
    - 1.4: Resetting the unit .....6
  - 2. Connecting to your SmartWatch.....7
  - 3. Use with a SmartWatch.....8
    - 3.1: Speaker unit modes .....8
    - 3.2: SmartWatch in Pace Mode .....8
    - 3.3: SmartWatch in Race Mode .....8
    - 3.4: SmartWatch in Interval Mode .....8
  - 4. Other Menu Items .....9
    - 4.1: Group .....9
    - 4.2: Channel .....9
  - 5. Connecting to Your Computer.....10
    - 5.1: Windows PCs .....11
    - 5.2: Version Information.....11
    - 5.3: Updating Firmware .....12
    - 5.4: Using Touchpads.....13
    - 5.5: Using Start Blocks with Force Switch.....14
  - 6. Charging the battery .....15
    - 6.1 Mini Speaker power cable .....15
  - 7. Caring for your AutoCoach device.....16

7.1: Storage .....	16
7.2: Handling .....	16
7.3: Labelling .....	16
7.4: Resetting.....	16
8. Use as Race Starting System .....	17

## SmartSpeaker Controls & Indicators



Note: There are two types of button presses on buttons ① and ②. A “Short Press” is of less than 0.4 Seconds Duration. A “Long Press” is of greater than 0.6 Seconds duration.

① - **Menu Dial/Enter button/ON Button** – when long pressed inwards. **Menu Item Selector** – twist knob to cycle through menu items.

**Battery Level Readout** – short press inwards activates a voiced reading of the ACS300's remaining battery percentage and current volume level.

② - **Volume dial/SELECT Dial/ OFF Button** - In normal state twist knob to set desired volume. Immediately after changing the **Menu Dial**, rotating the **Select Dial** will list selection for the current **Menu** section. Should you wish to enter the new setting, immediately press the **Menu Dial/Enter button** for saving your selection.

**Status Readout** – short press inwards to activate a voiced reading of each of the ACS300's menu sections (Normal/Timing, Group, Squad and Channel).

③ - **Status LED** - will flash when Speaker Unit is on; blue with more than 50% battery, green when less than 50% but more than 25% and red when less than 25%. When Menu is activated, LED will remain steadily lit for 15 seconds of inactivity and then resume flashing. The LED will also flash during reception of wireless data.

④ - **Starting LEDs** – will flash brightly during the Race Starts, so an athlete can see the start or a person can time at some distance accurately.

⑤ - **Splash Resistant Loudspeaker - Normal Mode** – sounds start beeps, start whistles, a starter's voice and intervals during sets. **Timing Mode** – reads out times recorded on the Smart Watch. **PA Speaker** – can amplify a Smart Watch user's voice. **Relay Mode** – announces and indicates relay change-over times.

⑥ - **Water Resistant Expansion Socket – USB Port** – data transfer and battery recharging. **Expansion** – for use with other devices.

⑦ - **Expansion Banana Connectors – (Large speaker only)** connection to touchpads or starting block pressure sensors. Red terminals are "Right" Black terminals are "Left" lanes.

# 1. Turning on and off

## 1.1: Turning unit on

If the unit is off (Status LED ③ not flashing), long pressing the Menu Button ① will turn the unit on. The Status LED ③ will confirm that the unit is on by flashing and announcing “On”. Upon start up the unit will announce its installed software version and its Network ID.

## 1.2: Turning unit off

The unit will automatically turn off after approx. 45 minutes inactivity. Just before turning itself off it will announce “Off”. The unit can be manually shut down by long pressing the Select Button ②. The unit will announce “Off” as it turns off, and the Status LED ③ will stop flashing.

## 1.3: Battery Level

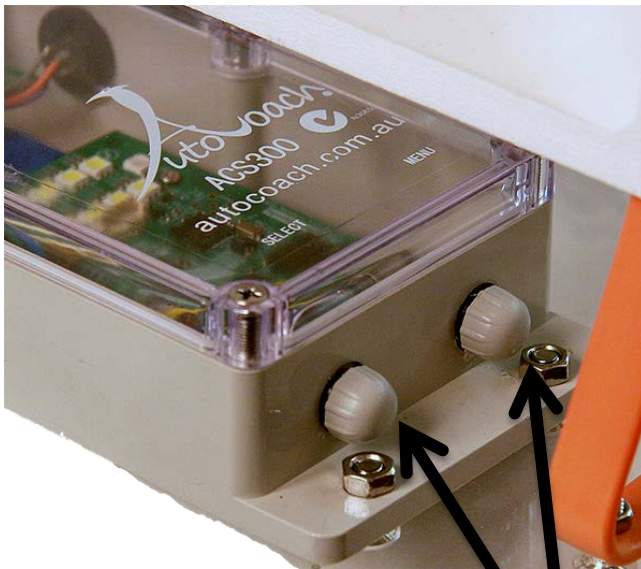
When the unit’s battery falls below 50%, the Status LED ③ will turn from blue to green. When the battery falls below 25%, the Status LED ③ will start flashing red. At this point we recommend charging the Speaker Unit.



ACS320 portable Speaker unit with carry case.

## 1.4: Resetting the unit

The unit can be reset to default conditions by pressing buttons ① and ② simultaneously for more than approx. 5 Seconds. After two seconds the unit will announce “Reboot, reboot” followed by the Status LED flashing for approx. 1 second. After booting, the unit will announce the software version (e.g “Version 1.70”).



Press in both Dials for more than 7 Seconds to Reboot

## 2. Connecting to your SmartWatch

**Please note version number firmware for Speakers should be the same as version number for the watch and other devices. If not please upgrade all your Firmware to the same version number in order to communicate correctly!**

1. To connect to your SmartWatch, first setup your SmartWatch by turning it on and finding the Setup Mode. In Setup Mode, set your Squad number and Channel number (e.g. Squad 1, Channel 15). \*
2. Turn on your Speaker Unit by holding down the Menu Button ① until the unit announces “On” and the Status LED ③ blinks. If you are using the default settings, no other settings need be changed, except what mode you wish (normal, timing etc.). To change the mode, simply rotate the mode dial till the unit announces the desired mode.
3. To change a setting such as Channel or group (**for customers who have purchased more than one system – otherwise don’t change!**) Proceed by rotating the Menu Dial ① until the Speaker Unit announces “Channel” or “Group”.
4. To change Channel (**only required for multiple systems – not recommended to change!**) Rotate the Menu Dial ① until the Speaker Unit announces “Channel”. From here, as in step 2, use the Select Dial ② and rotate until the Channel number matches your number used for in the Smart Watch (e.g. Channel 15), then long press Select Menu ① until the Speaker Unit confirms your selection by announcing “Store”.
5. Confirm your connection by starting a race in “Race Mode” on your SmartWatch and listening for the Starter Sounds from the Speaker Unit.

\*Refer to SmartWatch User Manual for detailed instructions regarding your SmartWatch



## 3. Use with a SmartWatch

### 3.1: Speaker unit modes

Firstly we need to ensure the speaker unit is set to the desired mode (Normal, Timing, Relays, Block-time) by rotating the Menu Dial ① until the Speaker Unit announces “Normal”/”Timing/Relay/Block-time”. When you want the recorded times to be announced by the speaker, Timing Mode should be selected, otherwise Normal Mode should be selected. In Timing Mode as the first swimmer receives a time by either the Smart Watch or a touchpad the time will be spoken. If another lane finishes within 2.5 seconds of the first, the unit will add “Left” or “Right” before that time in order to avoid ambiguity. In both Normal and Timing Mode the speaker unit behaves as follows.

### 3.2: SmartWatch in Pace Mode

The SmartSpeaker will play either an “in water start” (two warning beeps and a start beep), or a “race start” (a voiced “take your marks” and a start beep) depending on what button is used with the Smart Watch. Regardless of which start is chosen, the Speaker Unit will also produce a bright white starting flash.

After the start, the SmartSpeaker will play the “in water start” and flash in time with the pace set on the Smart Watch.

### 3.3: SmartWatch in Race Mode

The Speaker Unit will play a starter’s whistle, starter’s “take your marks”, start beep, start flash and start cancel “stand down” and pool exit whistles – all controlled through the Smart Watch.

### 3.4: SmartWatch in Interval Mode

Same as in Pace Mode.

## 4. Other Menu Items

### 4.1: Group

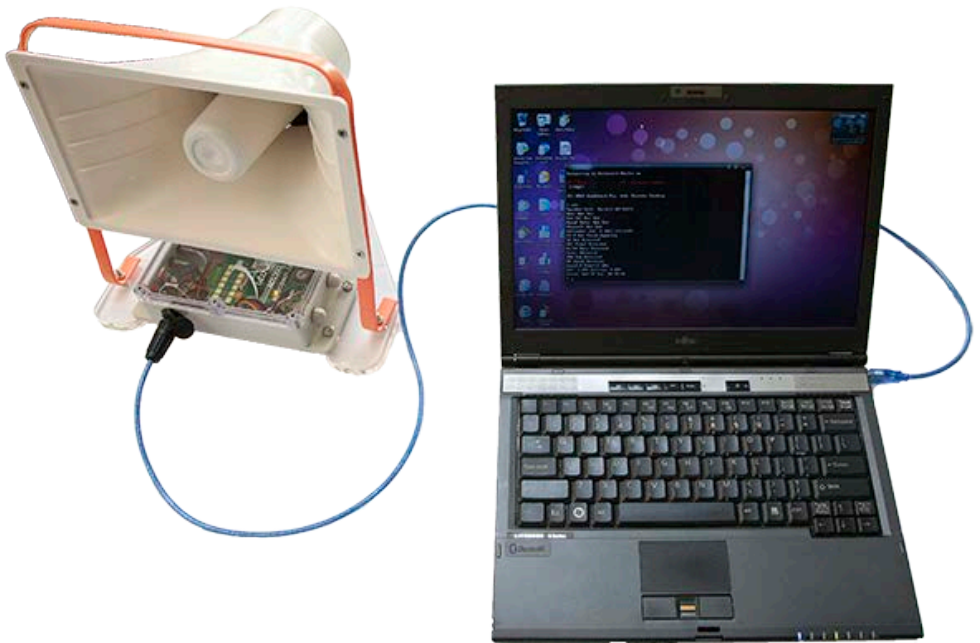
To reach Group, rotate the Menu Dial ① until the Speaker Unit announces “Group”. From here, use the Select Dial ② to choose a desired group and hold down the Menu Button ① until the Speaker Unit confirms the selection by announcing “Store”. **This setting should be “Group 0” for customers with a single system. Group 1, 2 etc. are only required for multiple lane race meets.**

### 4.2: Channel

To setup Channel, rotate the Menu Dial ① until the Speaker Unit announces “Channel”. From here, use the Select Dial ② to choose a desired channel and hold down the Menu Button ① until the Speaker Unit confirms the selection by announcing “Store”. **The default channel is “Channel 15” and should not be changed unless advised to do so.**

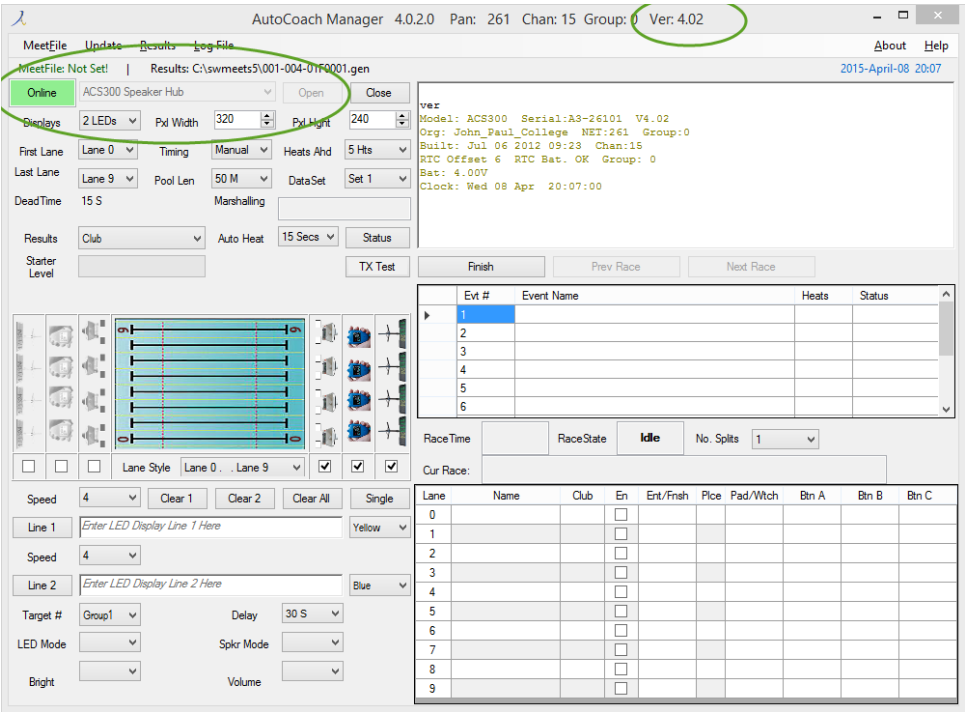
## 5. Connecting to Your Computer

When connecting to your computer, make sure that you carefully connect the SmartSpeaker end of the USB cable before the Computer end, ensure the locating bump on the plug is correctly oriented towards the socket and carefully plug in the cable. Ensure the SmartSpeaker is turned on so it can respond to commands in the AutoCoach Manager program.



5.1: Windows PCs

Either as part of the installation, or as an emailed or downloaded file you can update the firmware of an AutoCoach Device. Before upgrading, be sure to have at least 30 percent battery level remaining and do not operate any controls or other programs on your computer whilst the upgrade is in progress! After a successful upgrade, the unit will then reboot. *Please see the AutoCoach Manager Installation & Update guide for further details.*

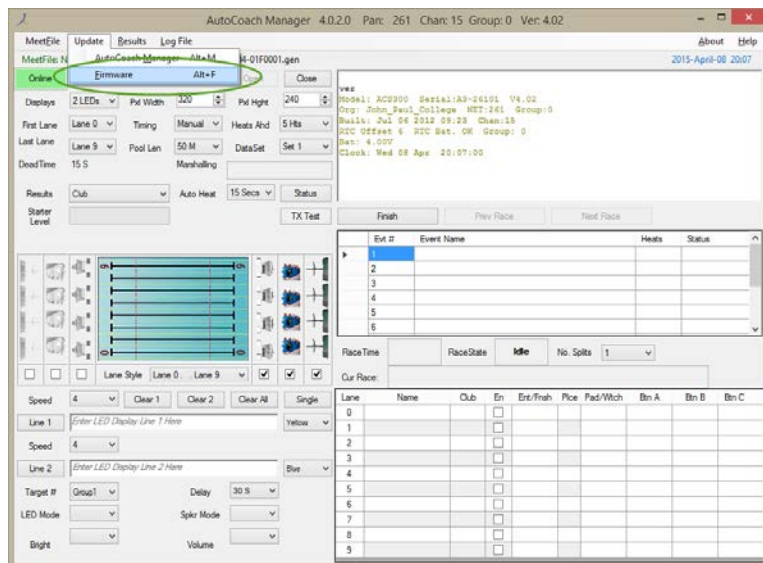


5.2: Version Information

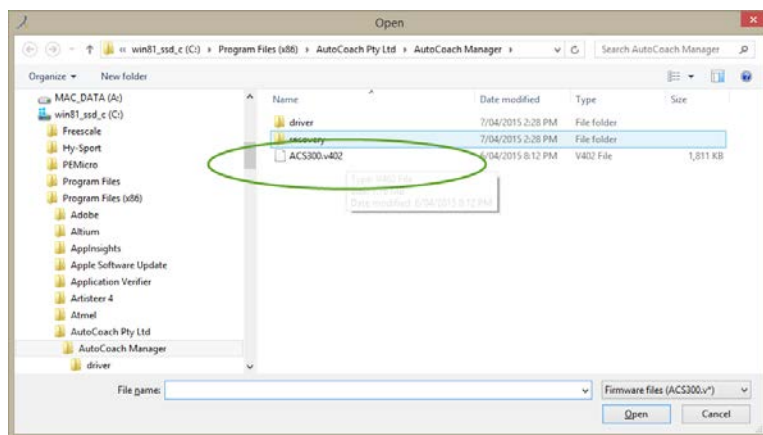
To get a summary of the device state type ver <cr> (version). This lists all relevant settings on the unit. AutoCoach Manager Version 3 and onwards display version number on window title once device is online.

### 5.3: Updating Firmware

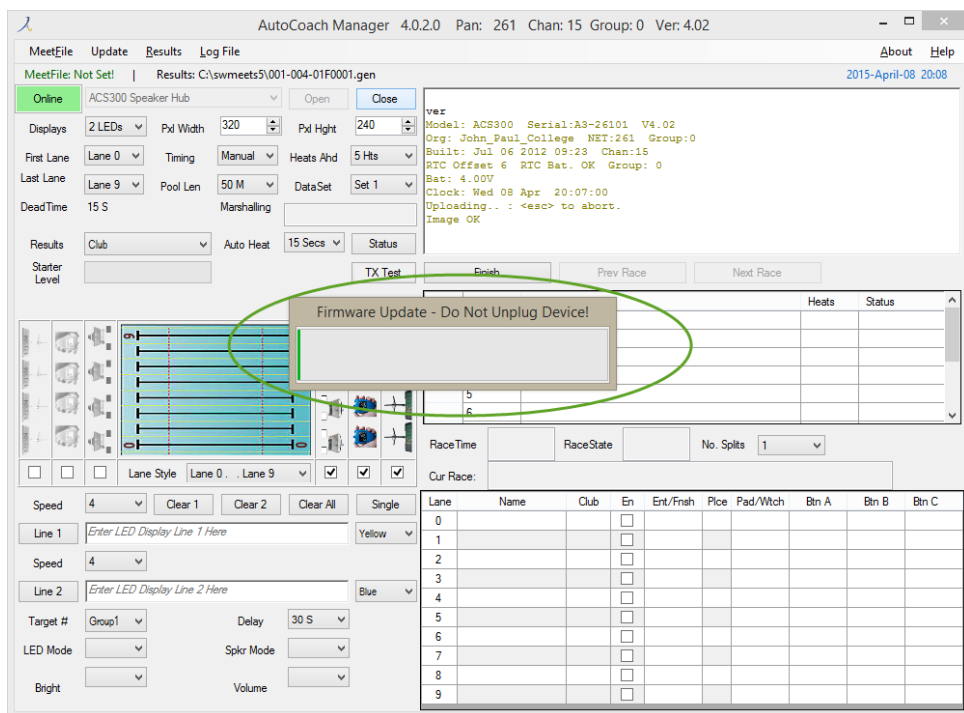
Plug a turned on speaker unit with at least 25% battery charge into a windows computer running AutoCoach Manager program. Then on the top menu select update->firmware as shown below.



Then select the firmware file as shown here:



Then press the open file button to begin the update process. DO NOT disturb the system whilst the update is in progress!



Wait till the update complete message appears and the Speaker unit reboots. Ensure all other devices you are using are updated to the same version by repeating the procedure.

## 5.4: Using Touchpads

One SmartSpeaker unit can connect to two touchpads. Connect the Left lane touchpad to the black terminals, and the right lane touchpad to the red terminals. In interval mode, touchpads are live all the time, and a retouch is detected after 2 seconds from the last touch. In race mode touchpads are active after a “dead time” delay from the start (keep this in mind when testing the pads before a race).

If doing “over the top” race starts, ensure swimmers holding the lane ropes are 2m from the pads or more, so no accidental pad touch can occur in the active race!

## 5.5: Using Start Blocks with Force Switch

One speaker unit can connect to a start block that has a force switch (red terminals), and optionally a touchpad (Black terminals) in the same lane.

Using the Start block force switch, Speakers with the “Block-time” option can measure reflex delay from start beep (time to when athlete starts to push back on the blocks) and “Block-time” (the time from start of start beep to when the feet leave the blocks). If a start has occurred and the reflex time is shorter than 0.2 seconds, a high beep will be emitted. All reflex times are then spoken so the diver can hear this time before they hit the water. A reflex time of less than 0.15 seconds is considered invalid, and a DQ beep is emitted first.

If the touchpad and the force switch are used together, and the “Relay” option is purchased, the SmartSpeaker can measure relay Changeover times (time from touchpad pressed to the time diver leaves the blocks). It can also indicate if an invalid changeover has occurred (diver left before touchpad touched). Changeovers measured between 0.07 and 0.15 seconds result in a high pitch “beep”, then the changeover time in hundredths of a second is quickly spoken, so the diving athlete can hear their time before they hit the water.

## 6. Charging the battery

The SmartSpeaker can be recharged with the supplied AC Adapter (5V 1000mA USB socket), or by connecting the unit to a PC or MAC via the supplied USB cable.



From 0% Battery level, charging usually completes within 3 hours. We recommend recharging when the battery level is below 30%, in order to be confident you have enough power for a day's usage.

Do not leave battery completely flat for more than a few weeks as this can reduce the life of the Li Polymer battery. If storing for an extended time fully charge the battery and turn the unit off.

### 6.1 Mini Speaker power cable

The mini speaker and later builds of the ACS300 Speaker use a three ring plug as the charger cable. Please ***DO NOT USE to charge the AutoCoach Stopwatch as this can fit into the headphone socket.*** The Stopwatches are charged by the supplied mini USB cable.





## 7. Caring for your AutoCoach device

### 7.1: Storage

Try to store in an as dry and cool place as possible. Always stand the Speaker Unit on its base and take care not to drop the unit on hard surfaces. Never place a wet device inside any sort of storage box or container – wipe it dry first!

### 7.2: Handling

The Speaker Unit is water RESISTANT, and NOT water proof. **Do not submerge** the SmartSpeaker. After usage around splashes, make sure to shake water out of the unit and wipe off remaining droplets. Take care with the orange handle as it can be broken if dropped or crushed. Replacement handles are readily available if damaged in transit.

### 7.3: Labelling

Please place a large visible sticker on your speaker unit to ensure it is not accidentally taken or stolen. Make sure an organization name and phone number is clearly seen. If using more than one squad, write the name and squad number for that speaker on it to avoid confusion!

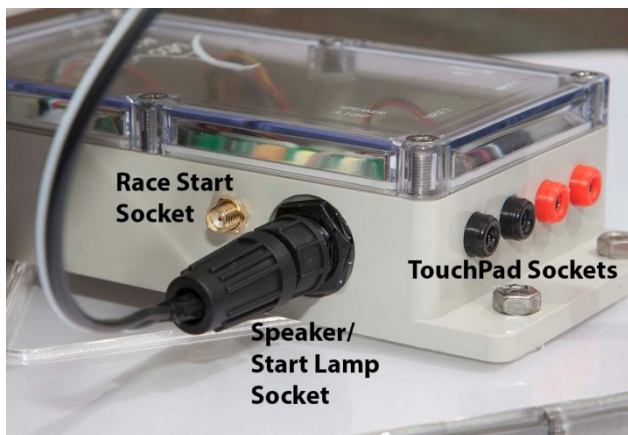
### 7.4: Resetting

If the program fails to respond or the device will not turn on, try performing a Reboot as per Section 1.4. Please record what you were doing when the problem happened and report to us in order for the problem to be investigated.

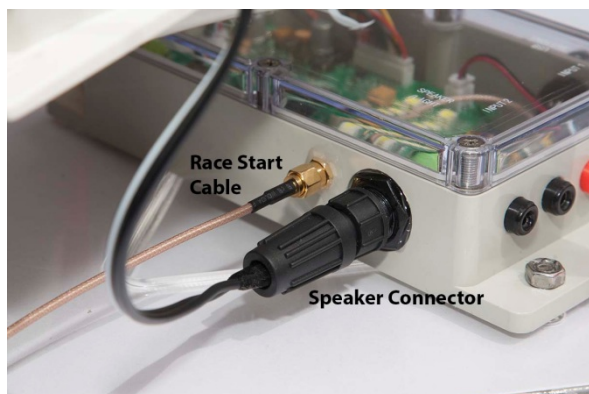
When resetting the device, the settings will reset to their default values – typically they are: Volume 5, Squad 1 and Channel 15. These default values will match the default values of your Smart Watch and is useful if you're having trouble connecting the two devices or have forgotten either of the devices' settings.

## 8. Use as Race Starting System

With an optional adapter cable, the SmartSpeaker can be connected to an existing race timing system, such as Omega or Colorado etc. As a socket needs to be fitted, the adapter cable should be ordered at the same time as ordering your SmartSpeaker unit.



The adapter cable plugs into the optional race start socket as shown.



Race Start Cable supplied for Dolphin Race Starter USB unit

